

Atty Docket No. JCLA8999

Serial No. 10/064,649

AMENDMENT**In The Claim****Claims 1-9. (cancelled)**

Claim 10. (Currently amended) A method of forming the self-aligned dual damascene opening of a dual damascene structure, comprising the steps of:

providing a substrate having a dielectric layer thereon;

forming a first photoresist layer over the dielectric layer;

forming a non-photosensitive material layer over the first photoresist layer, wherein the non-photosensitive material layer includes an anti-reflection layer and a material of the anti-reflection layer is selected from the group consisting of addition polymerization polymer, condensation polymerization polymer and ring-opening polymerization polymer;

forming a second photoresist layer over the non-photosensitive material layer;

conducting a first photo-exposure of the second photoresist layer;

conducting a first photoresist development to pattern the second photoresist layer and the non-photosensitive material layer and form a trench;

conducting a second photo-exposure of the first photoresist layer;

conducting a second photoresist development to pattern the first photoresist layer and form a via opening underneath the trench, wherein the trench and the via opening together constitute a dual damascene opening pattern; and

conducting an single etching operation to transfer the dual damascene opening pattern to the dielectric layer using the patterned first photoresist layer, the patterned non-photosensitive

Atty Docket No. JCLA8999

Serial No. 10/064,649

layer and the patterned second photoresist layer as an etching mask, thereby forming a dual damascene opening in the dielectric layer.

Claim 11. (Original) The method of claim 10, wherein the non-photosensitive material layer is formed from a material that can be dissolved by the chemical developer used in the first photoresist development.

Claims 12-13. (cancelled)

Claim 14. (Original) The method of claim 10, wherein the non-photosensitive material layer has a thickness between about 300Å to 1000Å.

Claim 15. (Original) The method of claim 10, wherein the first photoresist layer is a positive photoresist layer.

Claim 16. (Original) The method of claim 10, wherein the first photoresist layer has a thickness between about 2000Å to 4000Å.

Claim 17. (Original) The method of claim 10, wherein the second photoresist layer is a negative photoresist layer.

Claim 18. (Original) The method of claim 10, wherein the second photoresist layer has a thickness between about 2000Å to 4000Å.

Claims 19-24. (cancelled)